

REMARKS

Claims 1-16 are pending in this application. Claim 1 stands rejected and claims 2-9 are withdrawn from consideration. By this Amendment, claim 1 has been amended and claims 10-16 have been added. No new matter has been added. The amendments to the claims have been made to improve the form thereof. In light of the amendments and remarks set forth below, Applicants respectfully submit that each of the pending claims is in immediate condition for allowance.

The Examiner objected to the length of the Abstract. Applicants have amended the Abstract. Withdrawal of the objection is requested.

Claim 1 stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2002/0142490 ("Sato"). Applicants respectfully traverse this rejection.

To anticipate a claim under 35 U.S.C. § 102, the cited reference must disclose every element of the claim, as arranged in the claim, and in sufficient detail to enable one skilled in the art to make and use the anticipated subject matter. See, PPG Industries, Inc. v. Guardian Industries Corp., 75 F.3d 1558, 1566 (Fed. Cir. 1996); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1349 (Fed. Cir. 1998). A reference that does not expressly disclose all of the elements of a claimed invention cannot anticipate unless all of the undisclosed elements are inherently present in the reference. See, Continental Can Co. USA v. Monsanto Co., 942 F.2d 1264, 1268 (Fed. Cir. 1991).

Among the limitations of independent claim 1 not present in the cited reference is a spin valve film including a pinned layer, a conductive spacer layer, and a free layer.

The reference (Sato) cited by the Examiner relates to the TMR (magnetic tunnel effect element) but does not relate to the GMR element of the present invention. A TMR element includes a pinned layer, insulating layer and a free layer. In contrast, the claimed GMR element includes a spin valve film including a pinned layer, a conductive spacer layer, and a free layer.

In addition, the coil 30 disclosed in Sato is different from the initializing coil of the present invention in that the coil 30 disclosed in Sato imparts a bias magnetic field of alternating current (see [0081]), i.e., a magnetic field varying alternately. In contrast, the coil of the present invention generates a constant initializing magnetic field so that the direction of magnetization in each magnetic domain in the free layer can assuredly be returned to initial state direction, even if the direction of magnetization is disturbed by applying a strong magnetic field to the free layer.

New claim 14 includes all of the limitations discussed above and is allowable for the same reasons.

Applicants have responded to all of the rejections and objections recited in the Office Action. Reconsideration and a Notice of Allowance for all of the pending claims are therefore respectfully requested.

Application No.: 10/689,041

Docket No.: P9219.0003

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If the Examiner believes an interview would be of assistance, the Examiner is welcome to contact the undersigned at the number listed below.

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Respectfully submitted,

By 

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